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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,046	08/03/2001	Nai-Shung Chang	JCLA6385	7558

7590  
J.C. Patents  
4 Venture, Suite 250  
Irvine, CA 92618

06/14/2005

EXAMINER

VO, TIM T

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/922,046

Applicant(s)

CHANG, NAI-SHUNG

Examiner

Tim T. Vo

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/21/05.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-6,10 and 12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,4-6,10 and 12 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

***Response to Amendment***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 4-6, 10 and 12 are rejected under 35 U.S.C. § **103(a)** as being unpatentable over Horan et al. patent number 5,892,964 in view of Lee et al. patent number 6,789,154).

As for claims 1, 10 Horan teaches an extended bus structure (see figure 4A) comprising:

a first extended bus for expanding the first accelerated graphics port bus (see figure 4A, PCI bus 109);

a second accelerated graphics bus port for expanding the first accelerated graphics port bus (see figure 4A, AGP bus 304)

a first bridge coupled to the first, second accelerated graphics port bus and the first extended bus for converting mutually and compatibly signal and data between the first and second accelerated graphics port buses and first extended bus, wherein the first accelerated graphics port bus is at least expanded into the first extended bus and

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the first and second accelerated graphics port bus (see figure 4A, core logic 104 is being a bridge for coupling to the AGP buses 302, 304 and PCI bus 109. Further, column 12 line 66 to column 13 line 35, Horan teaches the bridge for coupling buses 302, 304, 109 and they are compatible to each other for data transfer between each other (column 4 line 66 to column 5 line 2).

Horan does not expressly teach wherein the first accelerated graphics port bus coupling to a control chip set. However, Lee teaches a control module 720, 730 is coupling to the AGP bus (see Lee figure 1, Graphics processor 120 and column 7 lines 17-50). It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Lee into the teachings of Horan because Lee's combination would improve the rate at which graphics data has been rendered, thus dividing the rendering workload among multiple independent graphic processors, the workload of rendering graphics is multiplexed, resulting in a system capable of rendering images at a greater rate (see Lee column 1 lines 53).

As for claim 4, Horan teaches a main accelerated graphics port controller coupled to the first accelerated graphic port bus for compatibility receiving and transmitting data and signal thereof (see figure 3, main controller 218a);

first extended bus controller for arbitrating and controlling flow direction of data and signal of the main accelerated graphics port controller and the first extended bus controller (see figure 3, AGP controller 210b, arbiter 216 and column 13 lines 8-10).

an extended accelerated graphics port controller coupled to the second accelerated graphics port bus for compatibility receiving and transmitting data and

signal of the second accelerated graphics port bus (see figure 3, the bus on the left of bus 211, this bus provides connection to other AGP controller);

a flow controller coupled to the main accelerated graphics port controller, the extended accelerated graphic port controller, and the first extended bus controller for arbitrating and controlling flow direction of data and signal into/from the main accelerated graphics port controller, the extended accelerated graphics port controller, and the first extended bus controller (see figure 3, AGP controllers 210a,b, arbiter 216).

As for claims 5-6 and 12, Horan teaches a second extended bus, coupled to the first bridge to expand the first accelerated graphics port bus (see figure 3, PCI bus); and wherein the first bridge further comprises a second extended bus controller coupled to the flow controller and the second extended bus for compatibility receiving and transmitting data and signal of the second extended bus and the flow controller arbitrates and controls flow direction of data and signal into/from the second extended bus controller (see figure 3).

### ***Conclusion***

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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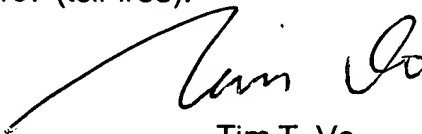
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim T. Vo whose telephone number is 571-272-3642. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

6/9/05



Tim T. Vo  
Primary Examiner  
Art Unit 2112